AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Clean Water Act as amended, (33 U.S.C. §§1251 et seq.; the "CWA"), and the Massachusetts Clean Waters Act, as amended, (M.G.L. Chap. 21, §§26-53),

Massachusetts Turnpike Authority (MTA)
185 Kneeland Street
Boston, Massachusetts 02111

is authorized to discharge from the facilities located at

18 separate construction/design areas comprised of **33 discharge points** within the project area (Central Artery/Tunnel) in Boston and Cambridge to receiving waters Fort Point Channel, Millers River, and Boston Harbor, all SB or SB (CSO) waters, and the Charles River, a class B water, in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective sixty days (60) from the date of signature.

This permit and the authorization to discharge expire at midnight, five (5) years from the effective date.

This permit supersedes the permit issued on November 21, 1997.

This permit consists of 10 pages in Part I including effluent limitations, monitoring requirements, Attachment A, and 35 pages in Part II including General Conditions and Definitions.

Signed this 11th day of April, 2003

/Signature on file/
Linda M. Murphy, Director
Office of Ecosystem Protection
Environmental Protection Agency
Boston, MA

Director
Division of Watershed Management
Department of Environmental Protection
Commonwealth of Massachusetts
Boston, MA

PART I

A.1. During the period beginning the effective date and lasting through expiration, the permittee is authorized to discharge from outfall serial numbers **001 through 099,** (although not all inclusive-see Attachment 1 of the permit), dry weather discharges including groundwater seepage, and construction operation run-off to Fort Point Channel, Boston Harbor, the Millers River and the Charles River. Such discharges, when active, shall be limited and monitored as specified below.

EFFLUENT CHARACTERISTIC			MONITORING REQUIREMENTS	
PARAMETER	**ANNUAL AVERAGE**	**MAXIMUM DAILY**	**MEASUREMENT FREQUENCY**	**SAMPLE TYPE**
Flow[1], GPM	****	Report MGD	1/Month	Estimate
Total Petroleum Hydrocarbons, (TPH), mg/l	****	5	1/Quarter	Grab[2]
TSS, mg/l	100	250	1/Month	Grab[2]
pH, s.u.	6.5 - 9.0 SU See page 3 of 12, PARAGRAPH I.A.1.b.		1/Quarter	Grab[2]
Aluminum, Total, ug/l	****	Report	1/Quarter	Grab[2]
Antimony, Total, ug/l	****	Report	1/Quarter	Grab[2]
Arsenic, Total, ug/l	****	Report	1/Quarter	Grab[2]
Beryllium, Total, ug/l	****	Report	1/Quarter	Grab[2]
Cadmium, Total, ug/l	****	Report	1/Quarter	Grab[2]
Chromium, Total, ug/l	****	Report	1/Quarter	Grab[2]
Copper, Total, ug/l	****	Report	1/Quarter	Grab[2]
Lead, Total , ug/l	****	Report	1/Quarter	Grab[2]
Mercury, Total, ug/l	****	Report	1/Quarter	Grab[2]
Silver, Total, ug/l	****	Report	1/Quarter	Grab[2]
Zinc, Total, ug/l	****	Report	1/Quarter	Grab[2]
Volatile Organic Compounds, Total, ug/l[3]	****	Report	1/Quarter	Grab[2]

Footnotes:

1. Flow estimates shall be made for all monitoring events.

2. The discharge from each individual sedimentation tank must meet the limitations imposed by this permit. During monthly and quarterly sampling when two or more tanks are discharging simultaneously to one outfall, grab samples from each tank shall be taken and aliquots may be combined into a flow-weighted composite sample which will be analyzed and submitted as a single sample for that outfall. If the flow-weighted composite exceeds effluent limitations, the remaining grab sample for each sedimentation tank will be analyzed separately for the parameters which exceeds the limitation as needed to identify the source discharge responsible for the exceedance.

3. VOC monitoring is only required when dewatering in Clearance Areas or at other specific project areas determined by EPA or MA DEP to have the potential for impacting VOC contamination. Prior to VOC monitoring, the permittee shall notify EPA and MADEP in writing the date(s) of monitoring, location(s)of monitoring, outfall number(s), and the type of construction operations(s) at the project area identified.

   The permittee shall indicate that no VOCs are present at a project area by including the No Data Indicator (NODI) code on the discharge monitoring report. Compliance/non-compliance for VOCs will be determined on NODI code. VOCs listed in Form 2C of EPA's NPDES permit application shall be sampled. This list shall be updated to include VOCs which are added to the priority pollutant listings. A screening method may be used for measuring the total concentration of VOCs if the method covers all the compounds listed in Form 2C.

Part I.A.1. (Continued)

a. The discharge shall not cause a violation of the water quality standards of the receiving waters.

b. The pH of the effluent shall not be less than 6.5 standard units nor greater than 9.0 standard units, or no more than 0.2 standards units above or below the naturally occurring background range, and shall be monitored quarterly by grab samples.

c. The discharge shall not cause turbidity and/or discoloration in concentrations or combinations that are objectionable or would impair any use to the receiving waters.

d. The effluent shall contain neither a visible oil sheen, foam, nor floating solids at any time.

e. Samples taken in compliance with the monitoring requirements specified above shall be taken between the discharge outlet from the gross particle separator and the discharge point, prior to mixing with any other stream.

f. Monitoring shall be performed after at least a 24 hour period during which there has been no precipitation (less than 0.02 inches).

g. Direct discharges of leachate from either the capped landfill on Spectacle Island or from any new or temporary landfill materials is prohibited.

h. The permittee shall not discharge disinfected wastewater or drinking water to any receiving water.

B. BEST MANAGEMENT PRACTICES PLAN (BMP)

1. The permittee shall update the existing Best Management Practices (BMP) plan. The BMP plan shall achieve the stated objectives and conform to the following requirements:

a. General Objectives:
The objectives of the plan are to minimize the potential for violations of the terms of the permit, to protect the designated water uses of the surrounding water bodies, and to mitigate pollution from materials storage areas, site runoff, improper use of waste disposal systems, accidental spillage, etc.

b. Implementation:
An updated BMP plan shall be available to EPA and the MA DEP upon request for review **within sixty (60) days of the effective date of this permit.** The permittee shall have on file a statement that certifies that the BMP plan has been updated and it shall be implemented in accordance with its schedule and requirements. Implementation of all aspects of the plan shall commence upon submission of the plan. If EPA and/or MA DEP determines any aspect of the plan to be unacceptable the permittee shall be notified by the Agency.

c. General Requirements:
The BMP plan shall:

(1) Be documented in narrative form and shall include any necessary plot plans, drawings or maps including, but not limited to diagrams, schematics or other depictions of the control and discharge systems used including all sample points. Due to this project's evolving nature, there will be additions to the BMP plan as new project areas become active and new information is made available. As such, the BMP plan will address these additions as they occur.

(2) Establish specific objectives for the control of toxic and hazardous pollutants.

(a) Examine each facility component or system for its potential for causing a release of significant amounts of toxic or hazardous pollutants to waters of the United States due to equipment failure, improper operation, natural phenomena such as rain or snowfall etc. Locations at which bypasses of the treatment system may occur as well as projected conditions under which a bypass may be necessary will be submitted.

(b) Where experience indicates a reasonable potential for equipment failure (e.g., a tank overflow or leakage), natural condition (e.g.,precipitation), or other circumstances to result in significant amounts of toxic or hazardous pollutants reaching surface waters, the plan shall include a prediction of the direction, rate of flow and total quantity of toxic or hazardous pollutants which could be discharged from the facility as a result of each condition or circumstance.

(3) Establish specific best management practices to meet the objectives identified under Paragraph B.1.c. (2) of this section, addressing each component or system capable of causing a release of significant amounts of pollutants to the waters of the United States. For example, specific practices to minimize and/or control the use of bypasses shall be outlined; prohibitions on the use of pesticides, herbicides, fertilizers or other toxic, hazardous or harmful substances, shall be identified; prohibitions on the dumping of solvents, fuel or motor oil, etc., onto the ground, parking areas, or into the dewatering/wet weather control and discharge system shall be identified.

(4) Establish specific best management practices for application during any construction to the development, to minimize the impact of construction on the receiving water. For example, specific practices to minimize adverse water quality impacts from site runoff, erosion, hazardous substances, spills, etc., shall be identified. Also, establish specific treatment schemes tailored toward different project areas (i.e. Materials Processing Facility, Barge Loading).

(5) In those project areas which contain elevated concentrations of oil or hazardous materials (known as "clearance areas") site specific monitoring and/or pretreatment procedures shall be

developed and implemented (as deemed appropriate and necessary by EPA or MA DEP) to minimize to the maximum extent practicable discharges of such hazardous and toxic materials.

d. Specific Requirements

The plan shall be consistent with the general guidance contained in the publication, NPDES Best Management Practices Guidance Document and shall include the following baseline BMPs as a minimum:

(1) BMP Management Structure
(2) Reporting of BMP Incidents
(3) Risk Identification and Assessment
(4) Inspections and Records
(5) Preventative Maintenance
(6) Good Housekeeping
(7) Materials Compatibility
(8) Security
(9) Education and Training

e. SPCC Plans

The updated BMP plan shall incorporate requirements for Spill Prevention Control and Countermeasure (SPCC) plans under Section 311 of the Act and 40 C.F.R. Part 112, and may incorporate any part of such plans into the BMP plan by reference.

f. Hazardous Waste Management

The permittee shall ensure the proper management of solid and hazardous waste in accordance with regulations promulgated under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1978 (RCRA 40 U.S.C. 6901 et seq.), or amendments thereto. Management practices required under RCRA regulations shall be referenced in the BMP plan.

g. Storm Water Pollution Prevention Plan

As part of the updated BMP plan the permittee shall update the storm water pollution prevention plan. The plan must cover the entire project area and must account for unique conditions in specific areas. The plan must be prepared consistent with sound and generally accepted engineering practices. The plan shall include, but not be limited to, the following:

(1) Site Description: Each plan shall, at a minimum, provide a description of the following:

(a) A description of the nature of the construction activity, including a proposed timetable for major activities;
(b) Estimates of the total area of the site and the area of the site that is expected to undergo excavation or grading;
(c) An estimate of the runoff coefficient of the site and the increase in impervious area after the construction is completed, a description of the nature of fill material to be used and existing data describing the soil or the quality of any discharge from the site;
(d) A site map indicating, at a minimum, drainage patterns and approximate slopes anticipated after major grading activities, areas used for the storage of soils or wastes, materials storage areas that have the potential to become water borne and enter the drainage system, the location of major control structures identified in the plan, refueling areas and the location of impervious structures after construction is completed and springs and other surface waters, and
(e) The name of the receiving waters, or the name of the municipal operator of the storm or combined sewer and the ultimate receiving water(s) if the discharge is to such a sewer.

(2) Controls

Each construction operation covered by this permit shall develop a description of controls appropriate for the facility and implement such controls. The description of controls shall address the following minimum components, including a schedule for implementing such controls:

(a) Erosion and Sediment Controls
Vegetative Practices.

A description of vegetative practices designed to preserve existing vegetation where practicable and replant open areas as soon as practicable after grading or construction. In developing vegetative practices, the operator shall consider: temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips and protection of trees. At a minimum, temporary seeding, permanent seeding, mulching, or sod stabilization procedures, or their equivalent, must be initiated on all disturbed areas within seven calendar days of the last activity of that area.

(b) Structural Practices
A description of structural practices to the degree practicable to divert flows from exposed soils, store flows or otherwise limit runoff from exposed areas of the site. In developing structural practices, the operator shall consider the appropriateness of: straw bale dikes, silt fences, brush barriers, drainage swales, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, sediment traps, and temporary sediment basins.

(c) Storm Water Management
A description of measures to control pollutants in stormwater discharges that will occur after construction operations have been completed. In developing structural practices, the operator shall consider the appropriateness of: infiltration of on-site runoff, flow attenuation by use of open vegetated swales and natural depressions, and stormwater retention and detention structures. A combination of practices may be used. Velocity dissipation devices placed at the outfall of detention or retention structures and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course. Justification shall be provided by the permittee for rejecting each practice based on site conditions.

Wastewater that has been treated with chlorine (such as the disinfection of water pipes) shall be discharged to the sewer system or dechlorinated prior to discharge into receiving waters.

(d) Waste Disposal
All wastes composed of building materials must be removed from the site for reuse or disposal in licensed facilities. No building material wastes or unused building materials shall be buried, dumped, or discharged at the site, unless such right had

been previously granted by the appropriate authority.

(3). The plan shall ensure and demonstrate compliance with applicable State or local sanitary regulations.

(4). Approved State or local plans
Facilities which discharge stormwater associated with industrial activity from construction activities must include in their stormwater pollution prevention plan procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by State or local officials. Applicable requirements specified in sediment and erosion plans or stormwater management plans approved by State or local officials are to be applied to discharges under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in a storm water pollution prevention plan required under this permit.

(5). Maintenance
A description of procedures to maintain in good and effective condition and promptly repair or restore all grade surfaces, walls, dams and structures, vegetation, erosion and sediment control measures and other protective devices identified in the site plan. At a minimum, procedures in the plan shall provide that all erosion controls on the site are inspected on a regular basis.

(6). All stormwater pollution prevention plans required under this permit are considered reports that shall be available to the public under Section 308(b) of the CWA. The owner or operator of a facility with discharges covered by this permit shall make plans available to the public upon such request. However, the permittee may claim any portion of a stormwater pollution plan as confidential in accordance with 40 CFR Part 2.

(7). No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

h. Documentation
The permittee shall maintain a description of the BMP plan on-site (on-site means, at a minimum, on a contract level basis) and shall make the plan available to EPA and MA DEP upon request.

i. Facility Changes
Within thirty (30) days of a change in the facility which materially increases the potential for the ancillary activities to result in a discharge of significant amounts of hazardous or toxic pollutants, the permittee shall submit to EPA and MA DEP an acceptable amended BMP plan.

j. BMP Plan Modification
If the BMP plan proves to be ineffective in achieving the general objective of preventing the release of significant amounts of toxic or hazardous pollutants to surface waters and the specific objectives and requirements under Paragraphs B.1.c.(2) (3) and (4) above, the permit and/or the BMP plan shall be subject to modification to incorporate revised BMP requirements.

C. SPECIAL CONDITIONS

1. The permittee shall comply with all pertinent conditions resulting from its agreement with the Boston Water and Sewer Commission (BWSC) concerning the use of any and all BWSC drains, pipes, and/or conduits through which the permittee will discharge.

2. The permittee, or its designee(s), shall monitor and sample the dewatering effluent between the gross particle separator and the discharge point but prior to discharge into any BWSC conveyances to maintain compliance with the NPDES permit conditions for construction dewatering discharges.

3. **At least thirty (30) days before construction is to begin** on any construction package area in which drainage is proposed to be discharged to a BWSC outfall, the permittee shall provide BWSC with final plans indicating the location of sedimentation controls, wheel wash stations, deployment of deposition and sediment control such as hay bales and filter fabric on the site, routes of dewatering and stormwater runoff from catch basins to outfalls and the schedule for utilizing each route. Copies of any documents submitted in compliance with this condition shall also be submitted to the:

   Massachusetts Department of Environmental Protection
   1 Winter Street, Boston, MA, 02108,
   attention of Mr. Steven G. Lipman.

4. The permittee is required to compile, keep current, maintain and submit to the MA DEP and other appropriate agencies a list of all areas requiring "clearance" (due to significant soil and/or groundwater contamination with oil or hazardous materials) or other such similar sites as they may be construed. Each site must be monitored and analyzed consistent with requirements herein and all applicable Massachusetts Department of Environmental Protection requirements with all results submitted as directed by the MA DEP. The permit may be modified should the results obtained above require the imposition of additional monitoring and/or controls.

5. The permittee shall appoint an individual(s) who will serve as the points of contact for EPA and MA DEP representatives to deal with concerning all aspects of this permit. The appointed individual(s) shall maintain the complete file of all relevant information and documentation regarding all aspects of this permit and shall be able to supply such information in a timely manner upon request to EPA and/or MA DEP. This information shall include Logan Airport rainfall data and a daily log of active discharges.

6. Individual discharges are permitted only for the period of their associated construction. Upon completion of such construction, the MTA shall notify the EPA, the MA DEP and the owner of the outfalls about terminating its use of the outfalls for construction dewatering.

7. The permittee shall submit a letter and a dewatering plan requesting permission to discharge dewatering drainage to a BWSC storm drain or combined sewer. If such discharge involves a new connection to a Commission storm drain or combined sewer, the BWSC requires the filing of a General Service Application.

8. If the permittee concludes that it must discharge from an outfall which had not been previously designated or which had been identified and not incorporated in the original permit or any

subsequent modification, then under certain conditions, discharge from such outfall may be allowed without a permit modification. In such a case, the permittee must notify the EPA, the MA DEP, the owner of the outfall and any other entity which may be affected by such a discharge (resident, etc.) as soon as possible once it has determined that this outfall must be used, and after considering other alternatives.

After consideration of outfall location, intended discharge period, similarity of potential outfall characteristics to currently permitted outfalls and any concerns of affected parties, the EPA or the MA DEP may allow such a discharge. This allowance or denial of such a request must be made by a letter of notification from the EPA or the MA DEP to the permittee, in such a time period as to attempt to accommodate the permittee's scheduling needs. If such a request is granted, the outfall(s) would be subject to all requirements and monitoring conditions set forth in this permit and any such outfalls will be considered for inclusion into this permit through any subsequent permit modifications or permit issuance.

9. This permit may be modified, or revoked and reissued, on the basis of new information in accordance with 40 CFR 122.62. 10. The MTA shall **prepare and submit a report to EPA and MA DEP at least 60 days prior to initiation of active construction** of all elements of the Project describing specific measures it intends to take to ensure that discharges from cementaceous construction activities are properly treated so as to consistently meet both the TSS and pH limits included in this permit. **Within 30 days of EPA/MA DEP approval of the report**, the MTA will incorporate the requirements into its contract specifications and/or BMP plan.

D. MONITORING AND REPORTING

1. Reporting
Monitoring results obtained during the previous month shall be summarized for each month and reported on separate Discharge Monitoring Report Form(s) **postmarked no later than the last day of the month following the completed reporting period**.

a. Original signed of all Discharge Monitoring Reports, and all other reports required herein, shall be submitted to the Director at the following address:

Environmental Protection Agency
Planning and Administration (SEW)
P.O. Box 8127
Boston, MA 02114

b. One signed copy of all monitoring reports and all other reports shall be submitted to the State and the BWSC at:

Massachusetts Department of Environmental Protection
Watershed Planning and Permitting Section
Northeast Regional Office
205 Lowell Street
Wilmington, MA 01887

Massachusetts Department of Environmental Protection
1 Winter Street
Boston, MA 02108
Attn: Steven G. Lipman

Boston Water and Sewer Commission
980 Harrison Avenue
Roxbury, MA 02119-2540
Attn: Chief Engineer

c. Signed copies of all other notifications and reports required by this permit shall be submitted to the State at:

Massachusetts Department of Environmental Protection
Division of Watershed Management
Surface Water Discharge Permit Program
627 Main Street, 2nd Floor
Worcester, MA 01608

E. STATE PERMIT CONDITIONS

This Discharge Permit is issued jointly by the U. S. Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MA DEP) under Federal and State law, respectively. As such, all the terms and conditions of this permit are hereby incorporated into and constitute a discharge permit issued by the Commissioner of the MA DEP pursuant to M.G.L. Chap.21, §43.

Each Agency shall have the independent right to enforce the terms and conditions of this Permit. Any modification, suspension or revocation of this Permit shall be effective only with respect to the Agency taking such action, and shall not affect the validity or status of this Permit as issued by the other Agency, unless and until each Agency has concurred in writing with such modification, suspension or revocation. In the event any portion of this Permit is declared, invalid, illegal or otherwise issued in violation of State law such permit shall remain in full force and effect under Federal law as an NPDES Permit issued by the U.S. Environmental Protection Agency. In the event this Permit is declared invalid, illegal or otherwise issued in violation of Federal law, this Permit shall remain in full force and effect under State law as a Permit issued by the Commonwealth of Massachusetts.